INTERIM REPORT
of the
STATES/BRITISH COLUMBIA
TASK FORCE
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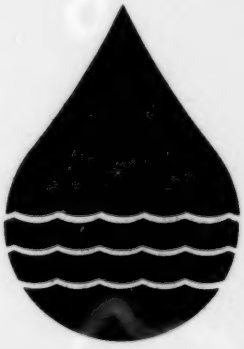

OIL SPILLS
December 1989

State of Alaska

Province of British Columbia

State of Washington

State of Oregon

State of California

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SUMMARY

The States/British Columbia Oil Spill Task Force was established to provide cooperative and coordinated spill response and prevention efforts. Since its formation in March 1989, the task force has grown to include British Columbia and the states of Washington, Oregon, Alaska and California.

The task force has established four subcommittees, each charged with the responsibility for completing a wide variety of studies on oil spill prevention alternatives, financial recovery, technology sharing and emergency response.

Significant progress has been achieved to date, and many of the originally mandated tasks will be completed in early 1990. This report gives an update on the status of the task force work.

PURPOSE

The purpose of this document is to provide an interim report on the cooperative process and preliminary findings of the States/B.C. Task Force on Oil Spills.

It outlines the tasks undertaken by the subcommittees to evaluate and improve spill prevention and response mechanisms, and describes the efforts of the individual partners of the task force - Alaska, British Columbia, Washington, Oregon and California - to find ways of responding more quickly within their own constituencies to any oil spills that may occur in the future.

A more encompassing document will be available in the new year after the tasks and reports of the subcommittees have been completed.

THE NESTUCCA SPILL

Shortly before midnight on December 22, 1988, the barge Nestucca was struck by its tug, the Ocean Service, on the Grays Harbor Bar, Washington.

The collision resulted in one of the largest oil spills in Washington history as 5000 barrels of fuel oil spilled out into the Pacific Ocean.

Not only were the nearby ocean and shoreline polluted, but the resulting oil slick affected over 800 square miles and came ashore on more than 110 miles of the Washington coast.

Drifting northward into British Columbia waters, the oil slick polluted the entire outer edge of the western shoreline of Vancouver Island.

The spill has had a detrimental impact on the lives of both Americans and Canadians, on wildlife in the affected areas, and on the beauty of a largely unspoiled coastline.

The far-reaching effects of this oil spill (effects that are still being assessed and litigated a year later), and the lessons learned in dealing with the implications of the disaster, suggested that Washington and British Columbia should work jointly to assess the adequacy of existing prevention and response mechanisms. They should also make suggestions for improvements in the coordinated response to any similar incidents in the future.

FORMATION OF THE STATES/B.C. TASK FORCE

The Nestucca spill provided the motivation and impetus for Premier Vander Zalm of British Columbia and Governor Booth Gardner of Washington to establish an international task force in March of 1989.

The mandate of the task force was to investigate ways and means of preventing oil spills; to review oil spill response procedures; document and assess the mechanisms for handling compensation claims; and develop a coordinated contingency plan for preventing and responding to oil spills in the future.

Four subcommittees were established at that time:

1) **the Prevention Alternatives Subcommittee** to evaluate ways and means of improving spill prevention through changes in operating procedures, regulations and laws;

2) **the Emergency Response Subcommittee** to identify existing response procedures and policies, to explore how they could be modified to complement each other, and to recommend an agreement to ensure a timely and effective coordinated response to future spills;

3) **the Financial Recovery Subcommittee** to examine and share existing information on procedures, laws and administrative mechanisms available to recover costs and damages from responsible parties; and

4) **the Technology Sharing Subcommittee** to identify and share existing technologies used by different agencies, and state-of-the-art equipment available for responding to spills.

EXXON VALDEZ RUNS AGROUND

Hardly had the task force been struck when the tanker Exxon Valdez ran aground on Bligh Reef about 25 miles from the port of Valdez, Alaska, just after midnight on March 24, 1989.

Eight of the 11 cargo tanks on the vessel were torn open by the rocks, releasing some 260,000 barrels of crude oil into the waters of Prince William Sound.

As is well documented elsewhere, the effects of this spill on the people and environment of Alaska have been devastating; the total cost to the physical and psychological health of the state may take years to evaluate and repair.

One positive result of the incident was that Alaska, Oregon and California joined the international task force in its efforts to find improved means of preventing and responding to such disasters.

Another positive outcome for the task force was that recently formed oil spill response teams were able to participate in the Alaskan cleanup operations, thereby providing assistance at a time when the Alaskans' response personnel were spread very thin. In doing so, Canadian teams and other task force members were able to observe actively and learn in a situation from which they could gain valuable experience for the future.

MEMORANDUM OF AGREEMENT

The first major accomplishment of the task force was the signing on June 16, 1989, by Premier Vander Zalm for British Columbia and Governor Booth Gardner for Washington of a memorandum of agreement on how their governments would deal in the future with transboundary environment and wildlife issues.

They were joined on July 3 by Governor Goldschmidt for Oregon and on August 3 by Governor Cowper for Alaska. Finally, on September 21, California was added to the task force.

Under the terms of the memorandum, the signatories agreed to appoint representatives of each government to maintain the memorandum. Representatives are to meet annually to review and plan cooperation, and written notification of appointments will be sent to all signatories to ensure effective coordination.

The memorandum reiterated the importance of:

- enhancing the environment and protecting it from oil spills;
- sharing and managing common transboundary fish and wildlife;
- protecting transboundary fish and wildlife from damage caused by spills and other discharges of oil;
- maintaining and improving a coordinated response to oil spills; and
- pursuing the above in cooperation with the federal governments of Canada and the United States.

Issues to be addressed by the subcommittees were outlined in the memorandum as:

- the creation of a joint emergency response plan;
- an evaluation of capabilities and technologies for spill prevention, response and containment;
- a review of tanker safety, routing and operating requirements;
- an inventory of equipment, material, and personnel available to either the province or the states for use in oil spill control and clean-up operations; and
- joint spill response drills and training.

The duration of the memorandum is intended to be perpetual, although each party has the option of terminating its involvement in the agreement.

THE WORK OF THE TASK FORCE SUBCOMMITTEES

Over the past year, the four subcommittees have been bringing together information for their respective tasks.

As of the end of November when this report was compiled, all the tasks were well in hand. Many will be completed by year's end as originally scheduled, while others are expected to be completed in the new year.

The tasks undertaken by each committee and the status of the studies are outlined below.

Prevention Alternatives Subcommittee

Task 1 - Oil Supply Alternatives Study: Identify and analyze all crude oil and product delivery and receipt points, routes and modes of transport on the west coast between Oregon and Alaska, and anticipated changes to the system. Consider other opportunities for moving crude oil or product that would reduce the existing and potential risks of the present system. Identify costs, benefits and constraints of alternative options.

Task 2 - Independent Review of Tanker and Barge Construction and Operating Standards: Evaluate all means for improving the operational safety of tankers and barges carrying crude oil or product on the west coast. Include in the review assessment of double hull construction, vacuum systems, navigational systems, emergency response systems, and crew conduct and training. Determine the reduction of spill risk that would be achieved through the implementation of various proposals for improvement of tanker/barge construction and equipment, and the enforcement of regulations, standards and guidelines.

Task 3 - Review of Tanker/ Barge Routing, Monitoring, and Emergency Response: Incorporate tanker traffic routing; emergency response capabilities for disabled tankers; adequate traffic systems; weather forecasting and navigational aids.

Task 4 - Oil Transportation Assessment: Incorporate navigation risk analysis with spill distribution and environmental risk evaluation. Develop menu of practical alternatives for risk reduction and recommend priorities for implementation.

1. Progress Report on the Oil Spill Alternatives Study

A contractor was hired to collect data from a number of government and industry sources. The data includes type, number and size of vessels as well as types of oil and product. This data has now been collected.

Economic and regulatory factors underlying current exports and imports, and forecast future trends have been analyzed to develop "status quo" forecasts of future traffic patterns.

Finally, by the end of December the contractor will be identifying some alternative measures that might alter those patterns to reduce the risk of future oil spills. Some of the options being considered are: pipeline supply of oil to replace Puget Sound tankers and a common-use terminal located outside the high-risk Puget Sound/Strait of Georgia basin.

Results of this study will be used in the navigation risk assessment.

2. Progress Report on Tanker/Barge Safety

A contractor was hired to review key reports on tanker and barge safety and has identified 28 priority issues to be examined in terms of cost, feasibility and potential risk reduction.

The contractor is also studying several key issues for licensing guidelines, training for personnel, and operating guidelines in transit and port. In addition, the contractor is acquiring a breakdown of accident statistics in order to identify those areas where a reduction in casualty risk will have the most significant impact in reducing spill frequency and volume.

The intention is to provide estimates of the percentage risk reduction, or decrease in volume, of spilled oil possible for each suggested improvement.

A final report is expected by the end of March 1990 and data from this study will also be incorporated into the navigation risk assessment task in the new year.

3. Progress Report on Routing and Emergency Response

This study is being conducted in-house by the B.C. Ministry of Environment in conjunction with Canadian Coast Guard and Environment Canada. The final report, due before the end of the year, will be incorporated into the oil transportation assessment task.

Offshore tanker routing is being considered in relation to Coast Guard initiatives to establish a tanker exclusion zone off the west coast of B.C. (see map following page)

The effectiveness of **vessel traffic service monitoring** for tankers entering the Strait of Juan de Fuca is being assessed with consideration being given to expanded radar coverage.

Part of this study also includes looking into **pre-spill emergency response measures, inshore tanker routing and barge routing.** Recommendations for improvements in these areas will follow review of the issues by the prevention alternatives subcommittee.

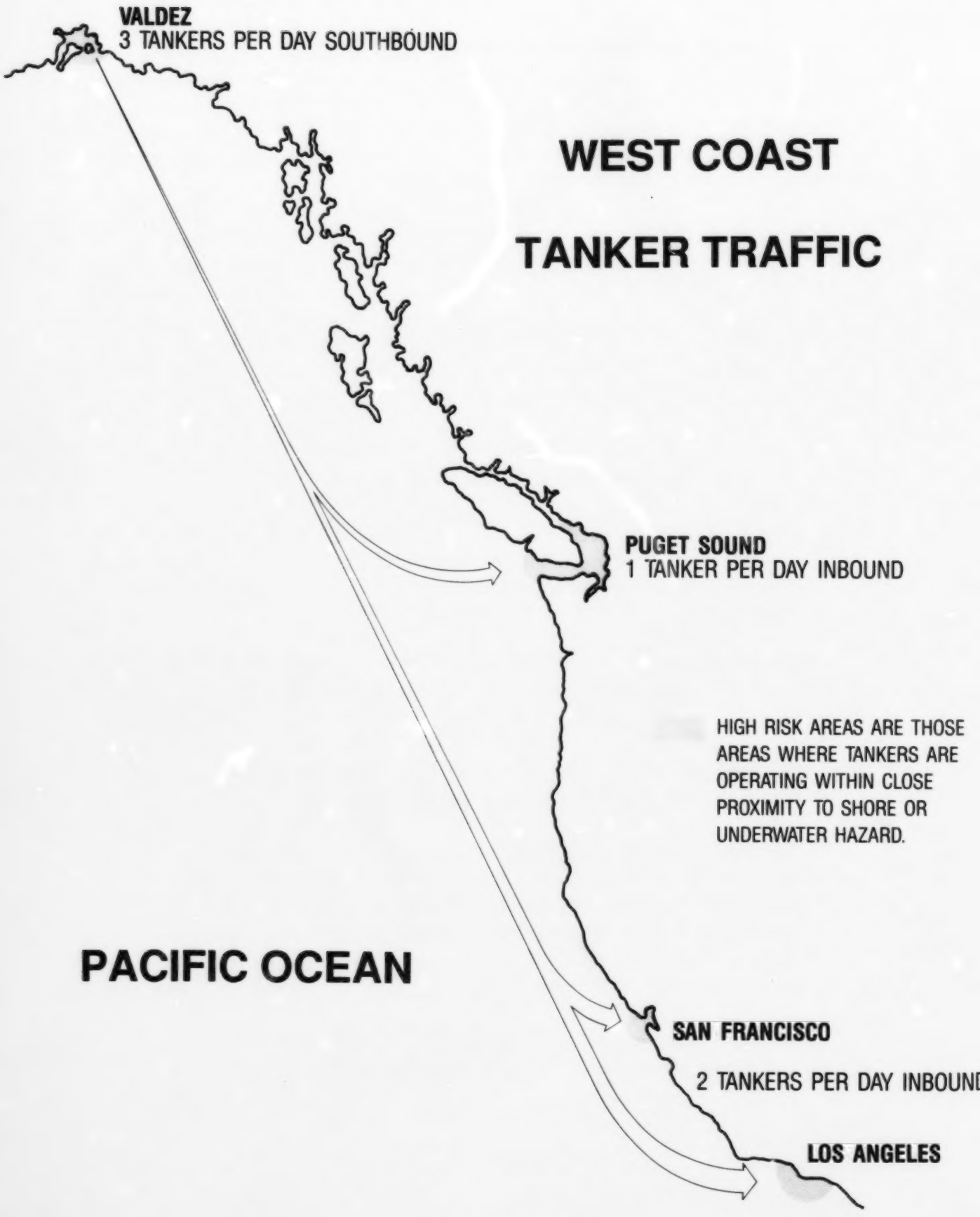
4. Progress Report on Oil Transportation Assessment

Phase 1 of the Oil Transportation Assessment incorporates the results of the first three tasks into a comprehensive oil transportation risk assessment.

- A **navigational risk assessment** will estimate the expected size, location and number of spills on the west coast.

- An **environmental risk evaluation** will: a) evaluate and rank the consequences of the most probable expected spills on the west coast from Oregon to Alaska with estimates of potential damage and clean-up costs included; and b) review existing and proposed spill prevention reduction measures to determine if they are commensurate with the level of risk.

  The contract is expected to be awarded in early December 1989 with a final report due at the end of April 1990.


VALDEZ
3 TANKERS PER DAY SOUTHBOUND
WEST COAST
TANKER TRAFFIC
PUGET SOUND
1 TANKER PER DAY INBOUND
HIGH RISK AREAS ARE THOSE AREAS WHERE TANKERS ARE OPERATING WITHIN CLOSE PROXIMITY TO SHORE OR UNDERWATER HAZARD.
PACIFIC OCEAN
SAN FRANCISCO
2 TANKERS PER DAY INBOUND
LOS ANGELES

Phase 2 of the Oil Transportation Assessment will develop a menu of practical alternatives for reducing the risk of future spills with cost/benefit estimates for each option. Priorities for implementation will be recommended. The final report is expected by the beginning of June 1990.

A key facet of the Prevention Alternatives studies will be their review by a study panel composed of members from the Washington Department of Ecology, the U.S. Coast Guard, the B.C. Ministry of Environment, Canadian Coast Guard, Environment Canada, the British Columbia Ministry of Energy, Mines and Petroleum Resources, and the oil industry.

The focus of the panel will be to assist the contractors in weighting risk factors, to help build consensus and to ensure the implementation of recommendations for reducing risks and preventing oil spills. Industry representation on the study review panel will be expanded in phase two to include producers and shippers as well as refiners.

Emergency Response Subcommittee

Task - To identify existing policies/procedures in Washington, British Columbia, Oregon and Alaska, to explore how they can be modified to complement each other, and to recommend a mutual aid plan to ensure a timely and effective response to future spills.

Progress on Joint Emergency Response Plan

The committee has reviewed the Canada/US Coast Guard agreement and each jurisdiction is submitting a matrix of agency functions and response mechanisms currently in place. They will form the body of the plan.

The plan outlines a concept of operations and is intended to be a living document with provisions for appropriate review, updating and annual joint exercises. It identifies which jurisdictions at the provincial, state and local levels need to be involved in support of existing and future federal and international agreements. British Columbia is drafting the first section to introduce the concept of operations and how it relates to the Canada/US agreement.

All jurisdictions involved in the subcommittee support the adoption of the process known as the Incident Command System as a basis for providing consistency of procedure for alerting and monitoring, and for the provision of mutual expertise.

Progress on Joint Notification/Fan-out List

A joint notification list has been assembled and is currently being edited prior to publication. It will contain criteria to be used in notifying the appropriate personnel within all designated agencies. The list will be updated annually.

Progress on Oil Spill Response Exercises

The committee has agreed to a tiered approach to oil spill exercises, and full cooperation with all other concerned parties. A five-year schedule for exercises, starting January 1990, is currently being drawn up.

Financial Recovery Subcommittee

Task 1 - Cost Recovery and Damage Assessment Options: Review existing information on procedures and laws for recovering costs and damages from responsible parties.

Task 2 - Generic Field Contract: Provide a short contract for field use to allow spiller to assume responsibility.

Progress

British Columbia and the federal government of Canada have now completed a draft synopsis of the law of British Columbia as it would pertain to cost recovery matters arising out of oil spills.

The synopsis outlines the various enactments, both federal and provincial, and the common law principles that relate to the assessment and recovery of environmental damage. It reviews the various limitations and international conventions of which Canada is a participant, and outlines procedures in the federal court, which is the most important forum for admiralty actions in Canada.

The state of Washington has completed a draft manual of recovery options outlining the historical development of admiralty law in the United States. The manual deals with the issue of legal standing and the concept of "public trustee" as it pertains to state resources. It contains a comprehensive review of the statutory causes of action under both federal and state statutes, as well as the common law relating to maritime negligence and nuisance.

Consideration is also given to legislation regarding the assessment of environmental damage and the various funds available in the United States to deal with the consequences of a major oil spill.

Briefs relative to the statute law of Alaska, Oregon and California are expected prior to the final report of the subcommittee.

Technology Sharing Subcommittee

Task 1 - Oil Spill Equipment Inventory: Obtain an inventory of private and cooperatively held response equipment, including an assessment of the capabilities of the equipment and recommendations for further needed equipment needs.

Task 2 - Technology Evaluations: Provide consensus opinions on which technologies can and cannot work for the task force members. Review technology submittals and evaluate promising proposals.

Progress

An equipment inventory has been received from Washington. Inventories have been requested from British Columbia and Columbia River cooperatives. Once all the inventories are compiled (including the upgrades and the PIRO major spill equipment), the subcommittee will make an evaluation of the capability of spill response equipment. If there are obvious shortcomings, they will be pointed out in the final report.

Numerous new and innovative suggestions and proposals for clean-up technology and oil spill response were received by provincial and state governments. These proposals encompassed a wide range of technologies including absorbent materials, marine transportation concepts, clean-up devices and others.

Many of the proposals were forwarded to the Environmental Emergency Technology Division of Environment Canada in Ottawa, Ontario, and the US Coast Guard testing facility in Groton, Connecticut, for professional technical review.

These suggestions, along with the thousands of proposals submitted to Alaska, will be thoroughly evaluated at the federel level. If appropriate, the results will be shared through federal channels. Task force members will need to be aware of these reviews as they are made available.

The subcommittee will hold forums to discuss beach cleanup techniques and resource damage assessment methodology. These forums have been delayed due to the loss of our coordinator. The purpose is to bring together experts in these areas to foster consistency and comparison of ideas.

In addition to the above tasks, the technology sharing subcommittee has undertaken to make a study of oil supply routes in the Washington/B.C. area. This study, which was commissioned by the Western States Petroleum Association, is now complete. The study shows oil supply routes in the Puget Sound and off the coasts. The contractor was the University of Washington's Marine Studies Institute.

INDIVIDUAL ACCOMPLISHMENTS

Since the Nestucca oil spill, personnel from Alaska, British Columbia, Washington, Oregon and California have been working together on the task force to find ways of cooperatively responding to spills in the future. Each has also been occupied with coordinating its own state/provincial response and drafting legislation that will clarify responsibility for clean-up operations.

The following reports describe what each is doing in these areas.

Alaskan Initiatives

The Oil and Hazardous Substance Spill Response Section of the Alaska Department of Environmental Conservation is currently organizing and staffing two new projects charged with implementing emergency response and contingency planning legislation passed in the wake of the Exxon Valdez disaster.

Senate Bill 264 directs the establishment of an office of emergency response, a volunteer emergency response corps, and state-wide strategically located emergency response equipment depots.

Senate Bill 261 provides for the production and annual review and revision of a state master contingency plan, and regional master contigency plans for selected areas of the state.

Funding for these projects is provided by the Oil and Hazardous Substances Response Fund, which has been increased by a .055/bbl charge on TAPS oil. The new legislation also permits the funding by contract for research and training in the area of oil spill containment, cleanup and assessment.

In addition to the above projects, the department has undertaken an extensive reevaluation of individual vessel and facility contingency plans. A contract is being let to examine the criteria for contingency plan review and approval, and to develop a state-wide computer data base to facilitate the tracking of every installation and operator required to submit a plan.

The department continues to work diligently with the Alyeska Pipeline Service Company to produce an acceptable oil spill contingency plan for Prince William Sound. It is expected that Alyeska will submit a revised plan for approval in January 1990.

The Dispersant Functional Working Group to the Alaska Regional Response Team (ARRT) is re-evaluating the dispersant use guidelines for Alaska and dispersant use zones for Prince William Sound and Cook Inlet to determine if any changes are necessary based on recent use of the guidelines and the pre-approval agreement with the Environmental Protection Agency (EP) and the Coast Guard.

Other legislation passed during the 1989 session provides improved protection and compensation laws.

House Bill 68 sets liability similar to CERCLA specifying owners, operators, past owners, and those who arrange contracts for transport and disposal as responsible for damages to persons, property and the environment. Exclusions were made for acts of God, war and actions of a third party not under control of a diligent owner or operator.

Senate Bill 271 increased civil penalties for crude oil discharges to $8 per gallon up to 420,000 gallons and $12.50 per gallon in excesss of 420,000, to a maximum of $500 million. In addition, the court may assesss four times the penalty amount for negligence, failure to take reasonable cleanup measures, or failure to follow a contingency plan.

Senate Bill 277 established a special commission to investigate the Exxon Valdez disaster and recommend changes to Alaskan laws; propose legislation to encourage and fund prevention and cleanup of spilled oil; and to identify steps necessary to handle better oil and oil spills.

British Columbian Initiatives

The States/B.C. Oil Spill Task Force has been a focus of the B.C. government effort in the area of oil spill prevention and response since the Nestucca spill in December 1988. However, it has also undertaken several other initiatives that fall outside the task force mandate.

Immediately following reports of Nestucca oil stranding on Vancouver Island beaches, a federal-provincial team was assembled to assess the short- and long-term environmental impacts of the spill. Several projects and activities were instigated to determine the immediate impacts of the oil on the environment.

Environment Canada and the B.C. Ministry of Environment have jointly published a report, *The Nestucca Oil Spill, Preliminary Evaluation of Impacts on the West Coast of Vancouver Island,* prepared by Environmental Sciences Ltd., which describes the results of many of these studies. Longer-term research programs are still in progress.

Another direct result of the Nestucca spill was the appointment of David Anderson as the special advisor on oil spills to the Premier. Through a series of public hearings, and through private interviews and correspondence, Mr. Anderson has investigated a broad range of matters dealing with oil spills and tanker safety. His report to the Premier in December contained over 180 multi-jurisdictional recommendations for action dealing with:

- preventing oil spills by reducing consumption, recycling oil products, reducing tanker traffic, and improving ship safety;
- responding to spills by a variety of improved methods and by the establishment of an independent oil spill response agency; and
- improving oil spill compensation and insurance.

British Columbia has taken some very positive steps in the matter of response and clean-up to those spills that may occur despite our best efforts at prevention. In the spring, a preliminary oil spill contingency plan was prepared. Two oil spill response teams were formed (north and south coast teams), made up of technical, professional and managerial staff of the Ministry of Environment and the Provincial Emergency Program (PEP).

At the present time, B.C.'s contingency plan is being expanded into a more comprehensive document, and a full training program in oil spill resonse is being drawn up for the two response teams.

In the general area of contingency planning, a new focus at the Ministry of Environment is to ensure that all industries that store or transship petroleum products have taken appropriate measures to avoid spills and also have workable contingency plans to establish timely and effective response to those spills that do occur.

A steering committee, which includes federal and provincial agencies and representatives of major industry associations, has been struck to establish rigorous standards for industry contingency plans. The committee will also develop an effective process for auditing industry contingency plans.

A major long-term goal of the Ministry of Environment is the development of a computerized oil spill response information system, critical in oil spill contingency planning for the identification of high risk shoreline, protection methods for all types of shoreline, simulated oil spill reponse tests, assessment of oil impact for clean-up operations, and long-term monitoring of the effects of oil. The immediate tasks being undertaken in the achievement of this long-term goal are:

- cataloguing and editing of coastal videos, which will make biophysical data readily accessible in the event of an oil spill;

- preparation of a hard-copy oil spill response atlas for southwestern Vancouver Island;

- identification, compilation, cataloguing and summary of existing environmental data (pertinent for planning and implementing oil spill countermeasures) in the southern portion of the Strait of Georgia;

- preparation of an appropriate coastal resources and sensitivity mapping system on a pilot scale for the Queen Charlotte Islands (along with Environment Canada through the Environmental Coordinating Committee); and

- analysis of feasibility and requirements for an oil spill response information system for the Ministry of Environment.

The provincial government is confident that these initiatives, in conjunction with task force activities, will contribute significantly to an improved preparedness in dealing with future spills.

Washington Initiatives

Contingency Plan Review and Revision

- The state is revising its contingency plan to more accurately explain the roles of ecology spill responders. The plan will be consistent with local, regional and federal plans. The state has revised its response organization and management scheme to assume effective response for major spills.

- The state has reviewed the US Coast Guard contingency plans for: MSO Puget Sound, MSO Portland, Region X, and the CANUS plan. Detailed comments have been forwarded to the USCG for their use in revising their plans.

Dispersant Policy

- This task was originally a part of the task force, but was deferred to the Regional Response Team (Ecology is a member of the RRT and will be involved in the policy developments.).

- The state has obtained agreement from all Washington state resource agencies that dispersants, with appropriate conditions placed on their use, may be an effective tool for spill response,

- A major consideration will be State Environmental Policy requirements, which require an environmental impact statement.

Puget Sound Water Quality Authority Issue Paper

- Comprehensive listing of oil spill prevention issues.

- The state has asked for further details and some priorization.

- A final paper is to be submitted to the States/B.C. Task Force.

- Recommendations and a worklist for implementation will follow.

Nestucca Report

- The state has completed the final report on the spill, which assesses the state's response and presents recommendations for improvements.

- Major recommendations include definition of roles among state and federal agencies, volunteer management policy, and revision of the spill response plan.

- Ecology will work with the Department of Wild Life to develop policies for bird rescue and rehabilitation. Major parts of these policies will be state trustee roles and protocols for the setting up of bird rescue centres.

- Ecology will work with the Division of Emergency Management to develop an effective volunteer management policy, including liability concerns.

Legislative Efforts

- HB 2242 requires owners or operators of vessels over 300 gross tons, which transport petroleum products in the state, to provide evidence of financial responsibility. Liability limits are one million dollars or $150 per gross ton, whichever is greater.

- ESHB 1853 directs Ecology to adopt an oil spill compensation schedule of up to $50 per gallon on spilled oil to compensate the state for damages that are unquantifiable or very difficult to quantify at reasonable cost.

- Ecology has spent considerable time with our key legislators to develop these bills and other legislation. Ecology has worked through the National Governors Association and our federal delegation to eliminate state preeemption for liability limits. Ecology will continue to work with state and federal legislators to enact comprehensive and responsible oil spill prevention and response bills.

Washington Conservation Corps Training

- Corps members have completed a training session on bird cleaning techniques. The Environment Youth Corps of British Columbia was included in this training. The WCC was very valuable in bird and beach cleanup during the Nestucca spill, and the training will provide a skilled work force to assist in future spills. Corps members who have received this training could conceivably train other responders.

Oregon Initiatives

Oregon Emergency Operations Plan: Oil and Hazardous Materials Emergency Response Plan (DEQ, 1987)

- This plan describes local, state and national communications networks for reporting spills of any kind.

- The plan details roles and responsibilities for local, state and federal agencies as well as industry and volunteer responders during minor, medium and major spills.

- The plan describes how the response system will work from local level to the national level for all types of spills including oil.

Natural Resource Protection Plans

At present, three coastal areas and one river system have plans specifically designed to protect the sensitive resources of those areas. These areas are: the Columbia River to Bonneville Dam, the Willamette River to Willamette Falls, Yaquina Bay and Coos Bay.

All of the above plans identify sensitive natural resources, priorize them for protection on a seasonal basis, suggest methods for protection, identify boom sites and possible containment sites, locate access points, and identify available equipment, personnel and response needs.

New Initiatives

The Oregon legislature recently mandated the Department of Environmental Quality to develop oil spill contingency plans for the entire Oregon coast and all the estuaries, the Columbia River to Pasco, and the Willamette River to Willamette Falls.

The plans will build on and supplement existing planning documents utilizing Geographic Information Systems (GIS) mapping systems. They will focus on natural resource protection, emphasize interstate coordination, and will deal with issues such as wildlife rehabilitation, debris disposal, dispersant use, and damage assessment. The plans are due to be completed by July 1, 1991.

New legislation also requires DEQ to develop rules to require all ships carrying bulk petroleum products over 300 gross tons to provide financial assurance of $1 million or $150/ton.

Another piece of legislation requires DEQ to develop rules to impose additional civil penalties for the unlawful discharge of oil. All monies collected would be placed in a newly created fund to be used for damages to the environment.

Californian Initiatives

Each day, California consumes over two million barrels of oil , much of which is imported into the state by oil tankers to the principal processing areas around Los Angeles and San Fransico Bay. There are some 2,500 tanker trips through state waters each year.

As all the production, transportation, and processing of crude oil is done in the private sector, federal and state laws require that responsible parties assume primary obligation for the prevention, control, and cleanup of oil spills, and the consequent rehabilitation of affected areas.

Current Capabilities

Spill Prevention through Permitting and Planning

Stringent laws and regulations control platform and pipeline design, and construction and operation, as well as the operation of vessels and marine terminals and harbors.

The Harbors and Navigation Code makes provision for the control and cleanup of oil spills in all harbors and navigable waters of the state. State Lands Commission (SLC) requires, reviews and approves plans for operations and equipment for platforms, pipelines and terminals for state leases. SLC personnel monitor compliance and effectiveness of those requirements by performing regular inspections and drills. The Minerals Management Service (MMS) imposes similar requirements on operations in federal waters.

The Coastal Commission (CCC) is empowered by Section 307 of the Coastal Zone Management Act (CZMA) and Section 30232 of the California Coastal Act to make provisions for "effective protection against the spillage of crude oil, gas, petroleum products, or hazardous materials...."

CCC has, in the past, used the consistency process to require spill prevention requirements, such as the use of pipelines rather than tankers, adoption of an approved oil spill contingency plan, and adoption of terminal/platform/pipeline operation manuals. Similar measures have been negotiated by the governor as lease sale stipulations under Section 19 of the OCS Lands Act.

Spill Response Capabilities

Industry response equipment and materials are available at two levels. Every production/processing facility, whether onshore or in state or federal waters, has on-site response equipment that may include spill containment booms, skimmers, storage vessels, response boats, and fire-fighting equipment.

To supplement on-site capabilities and to respond to large spills off-site, the industry has established four oil spill cooperatives that have regional response plans, extensive response equipment, full-time staff, and regular training and drill exercises.

Clean Coastal Waters - with three depots in southern California - maintains 15 large skimmers, several thousand feet of boom of various specifications and applications, one large (145 feet) and three smaller (34 foot) response vessels, storage tanks, and a large stock of dispersants.

Clean Seas - with six centers including Carpinteria, Santa Barbara and Ventura in central California - has 28 skimmers, 45,000 feet of containment boom of 13 different sizes and types, three large (1300 to 180 feet) and several smaller (15 to 46 feet) response vessels, as well as other items that include firefighting, oil transfer, communications, dispersant and storage equipment.

Clean Bay - based in San Fransisco - maintains similar quantities of equipment and stocks as the other two southern cooperatives. Response vessels and oil storage capacity is provided mainly through outside contractors.

Humboldt and Morro Bay Oil Spill Cooperatives - maintain equipment adequate to respond to smaller local spills, primarily in Humboldt and Morro Bays. Their offshore capabilities are limited.

Response Coordination and Funding

Pursuant to the federal Outer Continental Shelf Lands Act (OCSLA) and state laws, such as the State Lands Act and the California Coastal Act, oil and gas developers are required to prepare comprehensive oil spill contingency plans, make adequate equipment available, and train personnel in proper response procedures.

Tanker operators, facility owners, and offshore oil developers are generally required to post bonds in the order of $100 million to insure that adequate funding is available for cleanup, resource rehabilitation, and compensation for losses sustained as a result of a spill.

Several federal and state funds may be accessed by responsible agencies if needed to supplement or even take over the response by the spiller where necessary.

Currently, oil spill contingency plans are not required to be prepared by tanker owner/operators. Tanker operations are required to follow certain procedures enforced by the coast guard, and may be included in permit requirements if the oil is transported from a platform or to an onshore facility by tankers.

All tanker operators are required to file a certificate of financial responsibility (bond) based on the gross tonnage of the vessel. In the event of a spill, the tanker operator will be required to deposit monies into a fund from which the coast guard may withdraw clean-up costs.

The federal revolving fund used for cleanup is determined by the aspect of liability of the spill - e.g. Outer Continental Shelf (OCS), Trans Alaska Pipeline Service (TAPS), deepwater, or general oil transportation operation.

The Offshore Oil Spill Pollution Fund, administered by the Minerals Management Service, stands around $200 million. Funds come from a levy on all OCS production, and is available to spills resulting from OCS operations. This includes tankering from OCS rigs.

The 311 K fund, administered by the coast guard, is available for deepsea and general oil and/or hazardous materials spills. The balance in this fund was about $6 million before Valdez. Exxon has recently been ordered to maintain it at the pre-Valdez level throughout the cleanup operation.

Figures on the TAPS fund. The federal superfund may be used only if oil has been contaminated with CERCLA-designated (Comprehensive Environmental Resource Compensation and Liability Act) hazardous substances.

California has the Fish and Wildlife Pollution Cleanup and Abatement Account, administered by Fish and Game, and the State Water Pollution Clean-up and Abatement Account administered by the State Water Resources Control Board (SWRCB). Both accounts have low balances of around $600,000 and $4 million respectively. The SWRCB account may only be applied where no other source exists and where surface or ground water is threatened. The state superfund has basically the same applications limitations as the federal superfund.

State and Federal Involvement in Oil Spill Response

While the primary responsibility for the containment and cleanup of a spill rests with the spiller, federal, state and local agencies play a central role in the coordination and monitoring of the spiller's response. In the event that the response is deemed inadequate, these agencies may assume responsibility for the cleanup and restoration efforts.

If the spill occurs in internal waters, the lead federal agency generally is EPA. In coastal waters, the coast guard takes the lead.

The Department of Fish and Game (DFG) has been designated as the state's operating authority responsible for federal/state coordination and the direction of all state responses to oil spills.

The National Contingency Plan (NCP) and the state Oil Spill Contingency Plan (OSCP) require that the federal National Response Center (NRC) and State Office of Emergency Services (OES) be notified of all reportable spills. Where appropriate, the State Land Commission (SLC), Environmental Protection Agency (EPA), US Coast Guard (USCG) and other state and local agencies may need to be notified.

Small spills will generally be handled entirely by the spiller on-site or with the assistance of the cooperatives. In the case of exploration and production processing facilities, lease stipulations and permits generally require a one-hour response time for on-site spills, and two to six hours for other spills. The location and size of the spill, environmental threat, and weather conditions may predicate a more rapid response time.

If, in the opinion of the on-scene coordinator, the spiller is unable to respond adequately to the spill, the appropriate state or federal agency may take over the management and, if necessary, the funding of the operations. This last line of defense may occur within a 24 - 48 hour time frame. The extensive manpower and equipment of the US Navy, the Pacific Strike Team (USCG) and other private contractors may be summoned.

Current Oil Spill Prevention/Response Activities in California

Industry Action

The American Petroleum Institute (API) has proposed a number of improvements to current procedures and capabilities. All their proposals would affect California and would enhance oil spill prevention, response and cleanup in the state. The major points are:

- mandatory and expanded vessel traffic systems, pilotage, tug assistance, drug and alcohol testing and automatic pilot capabilities;

- investigation of feasibility of double hulls and on-board oil spill response equipment; and

- establishment of regional response centres.

As part of the offshore exploration/production activities, additional oil spill response activities have been undertaken by the industry. A major contingency plan covering the Santa Maria Basin and its resources was prepared by WOGA (now WSPA). Additional cleanup facilities, drills, and prevention measures have been provided as a result of the negotiated lease sale stipulations. These facilities include sea otter rehabilitation capabilities being planned currently.

Legislative Proposals

On the state level, SB 1482 (Keene) has been introduced to:

- create an office of oil spill response in the Department of Fish and Game;

- enact the Oil Spill Prevention and Response Act, which would prohibit any marine terminal or facility from being used by large tankers unless prescribed prevention requirements are met;

- create a $500 million oil spill and response fund from $.50 per barrel fee on marine terminal operators;

- authorize SLC to issue cease and desist orders on facilities that are not operating in a manner consistant with the act and\or regulations; and

- require that a state oil spill contingency plan and terminal facility contingency plans be established and updated annually.

This bill is the same as one introduced by Assemblyman Lempert (Preprint AB8). Both bills are currently being analyzed and will be heard before committees in 1990.

Sb 1193 (Marks), signed in 1989, enables DFG to integrate fishermen into oil spill cleanup operations by training charter boat operators and commercial fishermen in oil spill response and by making provision for establishing compensation for this service. This type of training is also now being provided by Clean Seas.

State Agency Actions

- SIOSC -- pursuant to SB 92 (Marks), enacted prior to Valdez, a report is being prepared on California's capability to respond to oil and hazardous materials transportation and storage disasters. The final draft is due in late 1989.

- DFG -- another effort begun prior to Valdez, the revised State Oil Contingency Plan 01 is in draft form and will be released for agency and public review shortly. Both documents have been delayed in order to incorporate recommendations made from experience gained from Valdez.

- Pursuant to SB 686 (Chapt. 1429, California Statutes of 1985), DFG has been conducting several studies: obtaining, cataloguing, storing and examining oil samples and cargo manifests from vessels operating in state waters; oil spill command, control and communication; cleaning of oiled birds and marine mammals; response personnel training; damage assessment manual; damage evaluation and assessment manual; envirnomental effects of chemical dispersants; and mapping and surveys of sensitive fish and wildlife habitats.

- DFG is currently negotiating with the University of California, Davis for a small veterinary research vehicle for wildlife.

- SLC, CCC and several legislators have sponsored workshops and public hearings on California's capability to respond to a major spill. SLC is also addressing oil spill capabilities as part of their California Comprehensive Offshore Resource Study (CCORS).

- OES is in the prccess of convening a task force to prepare an emergency disposal procedure to deal with cleanup wastes from oil spills and other emergencies. OES is also in the process of initiating a study with the Air Resources Board on the relative air impacts of burning a large oil spill vs the natural evaporation of such a spill.

Local Agency Actions

Several local governments are preparing oil spill contingency plans and establishing cleanup facilities through the Coastal Resources and Energy Assistance Program under the Secretary of Environmental Affairs.

Santa Barbara county has completed its own marine emergency management study and has just released a draft of its crude oil transportation analysis as part of the Gaviota Marine Terminal/Point Arguello Project permitting.